



Customer information packet

ECS101M0H7EC4

7.5HP, 1800RPM, 3PH, 60HZ, 184TC, 3648B, TEFC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	184TC
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	UL WEEE
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	6
Current @ Voltage	17.500 A @ 230.0 V 8.800 A @ 460.0 V
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	8.8 a
Insulation Class	F
Inverter Code	Inverter Duty

Part detail

Revision	K
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	36WGA0021
Layout	36LYT291
Eff. date	06-16-2025
CD Diagram	CD0005A25
Poles	04
Leads	9#12
Proprietary	False
Created date	09-28-2020

IP Rating	NONE
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3648B
Mounting Arrangement	F1
Number of Poles	4
Overall Length	18.04 IN
Power Factor	94
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.50
Shaft Diameter	1.125 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1800 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

BALDOR • RELIANCE

EC-Titanium™

CAT. NO.	ECS101M0H7EC 4									
SPEC .	36-0001737								YR	***
FRAME	184TC				ENCL .		TEFC		IP	54
HP	7.5		RATING		40C AMB-CONT					
NOM. EFF.	94.0			PF		94		SF	1.5	
VOLTS	230/460					FLA		17.5/8.8		
RPM	1800				RPM MAX			4000		
HZ	60				PH.		3		CLASS F	
BEMF (V)	106/212					Rs (Ω)		0.32/1.26		
Ld (mH)	6.3/25.0					Lq (mH)		22.9/91.6		
INV TYP	VPWM		CHP		60		TO 133		HZ	
	CT	6			TO 60		HZ		VT	1 TO 133 HZ
MATCHED INV	-									
BEARING	DE	6206					ODE		6205	
SERIAL#	***									

ELECTRIC MOTOR FOR INDUSTRIAL USE



ABB MOTORS AND MECHANICAL INC.
5711 R.S. BOREHAM JR. ST., FORT SMITH, AR. MFG IN U.S.A.

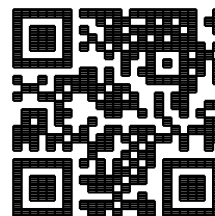
FERRITE ASSISTED
SYNCHRONOUS RELUCTANCE MOTOR
FOR INVERTER USE ONLY



PERMANENT MAGNET MOTOR. WHEN SHAFT IS
ROTATED, VOLTAGE WILL BE GENERATED AT
THE MOTOR TERMINALS.

MOTEUR À AIMANT PERMANENT. LORSQUE
L'ARBRE TOURNE, UNE TENSION SERA
GÉNÉRÉE AUX BORNES DU MOTEUR.

BALDOR-RELIANCE
SHAFT GROUNDING BRUSH INSTALLED



Volts	460	Max RPM	4000	Conn Diag.	CD0006	Leads	3
Amps	9.0	Max Amps		Cs Diagram	CS1126	BEMF	212
HP	7.5	VFD#	EC14A9P5			LD	25
RPM	1800	S.F.	1.00			LQ	91.6
Phase/Hz	3/60	Rating	40C AMB			Rs	1.3196
							Meas. L-L

60034-2-3 Motor Performance at Standardized Operating Points

	RPM	% Speed	LB-FT	% Torque	HP	Efficiency	Loss (% FL)	Watts Loss (W)
P1	1620	90%	21.9	100%	6.8	92.4	7.39%	418
P2	901	50%	21.9	100%	3.8	90.5	5.23%	296
P3	451	25%	22.0	100%	1.9	85.2	4.31%	244
P4	1623	90%	10.9	50%	3.4	92.9	3.43%	194
P5	902	50%	10.9	50%	1.9	90.9	2.48%	140
P6	902	50%	5.5	25%	0.9	89.3	1.49%	84
P7	451	25%	5.5	25%	0.5	85.1	1.08%	61

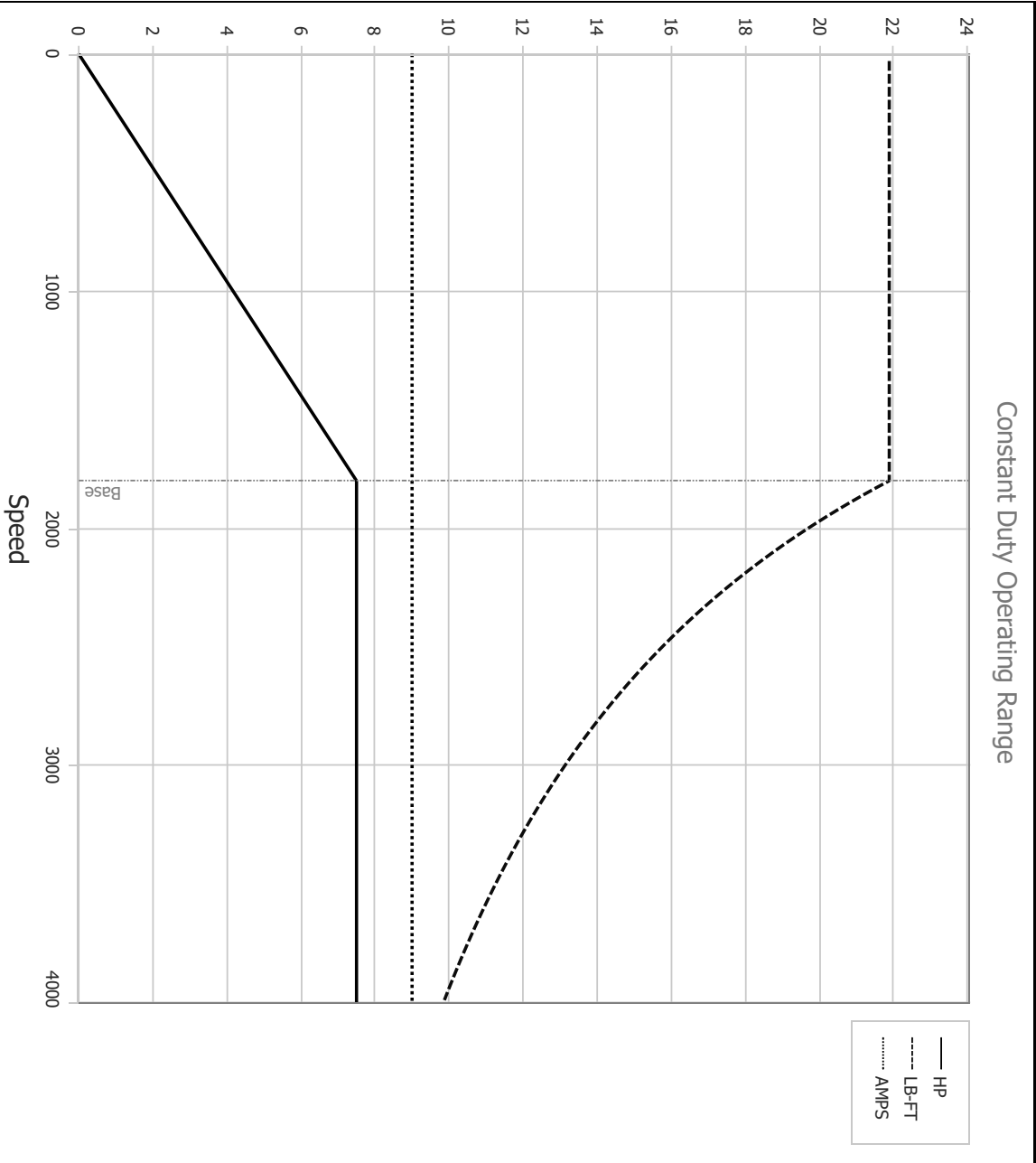
61800-9-2 PDS Performance at Reference Operating Points

	RPM	% Speed	LB-FT	% Torque	HP	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1802	100%	21.9	100%	7.5	91.5	9.22%	522
P2	901	50%	21.9	100%	3.8	87.1	7.36%	416
P3	300	17%	21.9	100%	1.3	73.5	5.95%	337
P4	1803	100%	10.9	50%	3.8	91.1	4.85%	275
P5	902	50%	10.9	50%	1.9	87.1	3.65%	207
P6	300	17%	10.9	50%	0.6	74.3	2.85%	161
P7	902	50%	5.5	25%	0.9	84.6	2.25%	128
P8	300	17%	5.5	25%	0.3	70.8	1.70%	96

Points not taken in certified order.

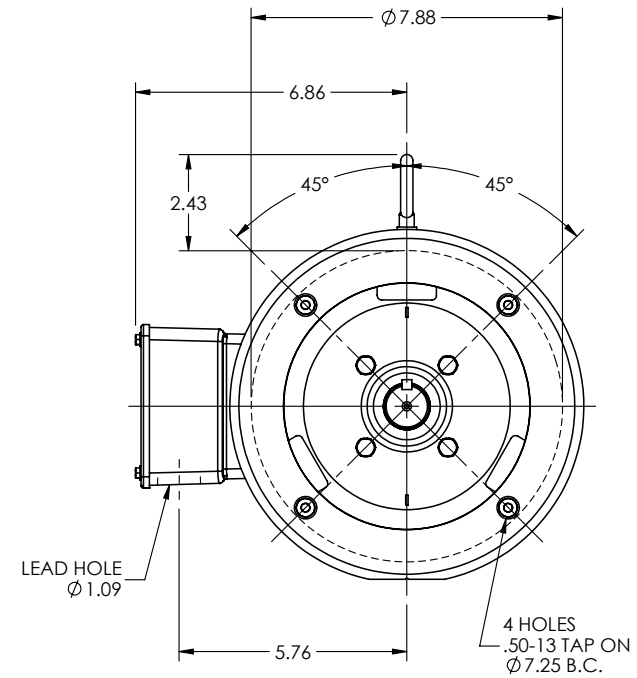
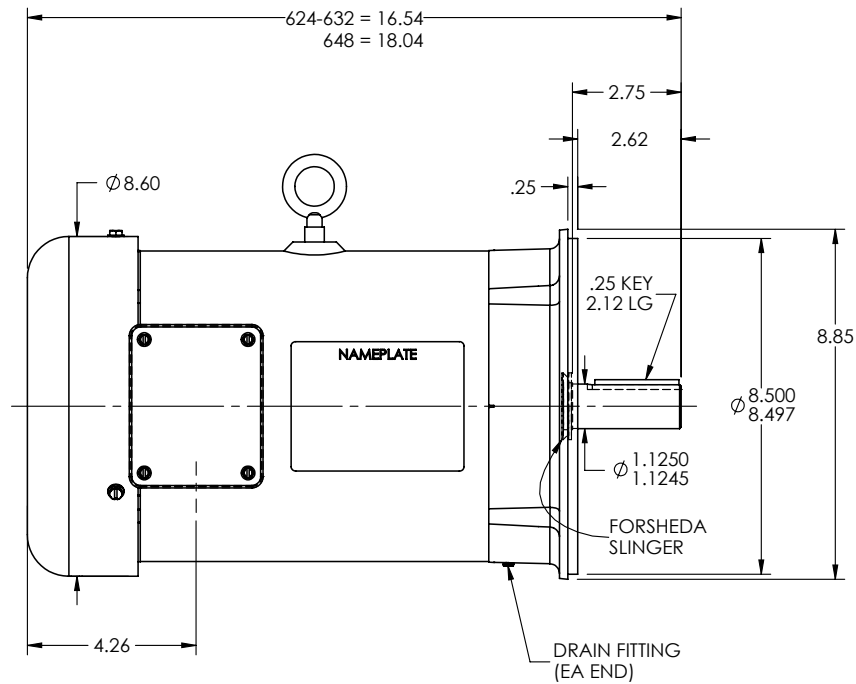
BALDOR • RELIANCE	DR By: <u>R & D</u> CK By: <u>USTOSAN</u> APP By: <u>USJAROB1</u> Date: <u>09/12/2024</u>	AC MOTOR PERFORMANCE CURVES	36WGL111 36T258L111G1 Test - 111285
--------------------------	--	------------------------------------	--

Volts	460	Max RPM	4000	Conn Diag.	CD0006	Leads	3
Amps	9.0	Max Amps		Cs Diagram	CS1126	BEMF	212
HP	7.5	VFD #	EC14A9P5			LD	25
RPM	1800	S.F.	1.00			LQ	91.6
Phase/Hz	3/60	Rating	40C AMB			Rs	1.3196 Meas L-L



BALDOR • RELIANCE	DR By: <u>R & D</u> CK By: <u>USTOSAN</u> APP By: <u>USJAROB1</u> Date: <u>09/12/2024</u>	AC MOTOR PERFORMANCE CURVES	36WGL111 36T258L111G1 Test - 111285
--------------------------	--	--	--

36LYT291



CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT ABB'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

REV. DESC: UPDATE DRAWING GRAPHICS

REV: A

VERSION: 01

REVISED: 10:42:36 03/21/2022

TDR: 000001187699



MODEL NO. 36LYT291

REF: -

BY: ENJEFD0

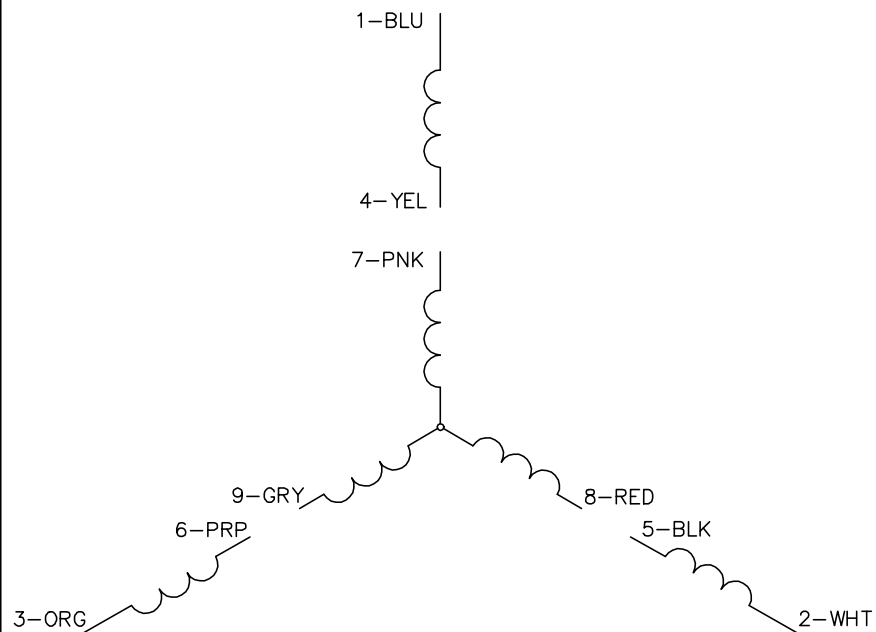
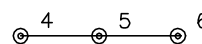
Material: -

BALDOR

VER 182-4TC TEFC B EYEBOLT INT SH GND ECS

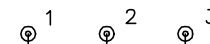
36LYT291

CD0005A25

LOW VOLTAGE
(2Y)

U V W

INVERTER

HIGH VOLTAGE
(1Y)

U V W

INVERTER

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: NEW

REV. LTR: -

VERSION: 00

TDR: 000001135746

FILE: \AAA\00253\082

REVISED: 01:10:57 03/30/2020

BY: ENMARSO

MTL: -



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, ECS

SH 1 of 1

CD0005A25